



**United States Environmental Protection Agency  
Region 9 Laboratory**

**1337 S. 46th Street Building 201  
Richmond, CA 94804**

**Date:** 2/13/2012

**Subject:** Analytical Testing Results - Project R33911  
SDG: 12034C

**From:** Brenda Bettencourt, Director  
EPA Region 9 Laboratory  
MTS-2

**To:** Richard Fetzer  
US EPA Region 3, Eastern Response Branch  
3HS31

Attached are the results from the analysis of samples from the **Dimock Residential Groundwater** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

**Analyses included in this report:**

Dissolved Hydrocarbon Gases by GC



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Phone:(510) 412-2300 Fax:(510) 412-2302

**Project Manager:** Richard Fetzer

**Project Number:** R33911

**Project:** Dimock Residential Groundwater

**US EPA Region 3, Eastern Response Branch**

**100 Gypsum Road**

**Stroudsburg PA, 18360**

**SDG:** 12034C

**Reported:** 02/13/12 14:59

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
HW42	1202011-01	Water	02/02/12 10:28	02/03/12 10:00
HW46	1202011-02	Water	02/02/12 11:39	02/03/12 10:00
HW46-P	1202011-03	Water	02/02/12 11:24	02/03/12 10:00
TB15	1202011-04	Water	02/02/12 07:50	02/03/12 10:00
FB08	1202011-05	Water	02/01/12 14:45	02/03/12 10:00
HW34a	1202011-06	Water	02/01/12 15:47	02/03/12 10:00
HW34a-P	1202011-07	Water	02/01/12 15:55	02/03/12 10:00
TB14	1202011-08	Water	02/01/12 10:10	02/03/12 10:00
FB09	1202011-09	Water	02/02/12 10:15	02/03/12 10:00
HW42z	1202011-10	Water	02/02/12 10:29	02/03/12 10:00
TB16	1202011-11	Water	02/02/12 07:57	02/03/12 10:00

**SDG ID 12034C**

Small amounts of methane were detected in the method blanks, field blanks and trip blanks. The highest level for a blank in this delivery group (received 2/3/12) was 6.2 ug/L in sample 1202011-11 (TB16). Reported methane values less than or equal to 31 ug/L in field samples are flagged as estimates due to possible contamination.

**Work Order(s)**

**1202011**



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## Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
<b>Lab ID: 1202011-01</b>						<b>Water - Sampled: 02/02/12 10:28</b>			
<b>Sample ID: HW42</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		2.2	B1, J	1.2	ug/L	B2B0015	02/03/12	02/06/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		111 %		66.4-153%		"	"	"	
<b>Lab ID: 1202011-02</b>						<b>Water - Sampled: 02/02/12 11:39</b>			
<b>Sample ID: HW46</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		1.5	B1, J	1.2	ug/L	B2B0015	02/03/12	02/06/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		110 %		66.4-153%		"	"	"	
<b>Lab ID: 1202011-03</b>						<b>Water - Sampled: 02/02/12 11:24</b>			
<b>Sample ID: HW46-P</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		1.5	B1, J	1.2	ug/L	B2B0015	02/03/12	02/06/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		113 %		66.4-153%		"	"	"	
<b>Lab ID: 1202011-04</b>						<b>Water - Sampled: 02/02/12 07:50</b>			
<b>Sample ID: TB15</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		1.5	B1, J	1.2	ug/L	B2B0015	02/03/12	02/06/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		112 %		66.4-153%		"	"	"	
<b>Lab ID: 1202011-05</b>						<b>Water - Sampled: 02/01/12 14:45</b>			
<b>Sample ID: FB08</b>						<b>Dissolved Gases by RSK-175</b>			
Methane		1.3	B1, J	1.2	ug/L	B2B0015	02/03/12	02/06/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		108 %		66.4-153%		"	"	"	
<b>Lab ID: 1202011-06</b>						<b>Water - Sampled: 02/01/12 15:47</b>			
<b>Sample ID: HW34a</b>						<b>Dissolved Gases by RSK-175</b>			
Methane	RE2	26,000		240	ug/L	B2B0024	02/06/12	02/07/12	RSK-175/SOP325
Ethane		55		1.2	"	B2B0015	02/03/12	02/06/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>		113 %		66.4-153%		"	"	"	
<i>Surrogate: Acetylene</i>		RE2	118 %	66.4-153%		B2B0024	02/06/12	02/07/12	



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**Project Number:** R33911  
**Project:** Dimock Residential Groundwater

**US EPA Region 3, Eastern Response Branch**  
**100 Gypsum Road**  
**Stroudsburg PA, 18360**

**SDG:** 12034C  
**Reported:** 02/13/12 14:59

## Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
<b>Lab ID: 1202011-07</b>		<b>Water - Sampled: 02/01/12 15:55</b>							
<b>Sample ID: HW34a-P</b>		<b>Dissolved Gases by RSK-175</b>							
Methane	RE2	470		3.9	ug/L	B2B0024	02/06/12	02/07/12	RSK-175/SOP325
Ethane		1.6		1.2	"	B2B0015	02/03/12	02/06/12	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>			109 %	66.4-153%		"	"	"	
<i>Surrogate: Acetylene</i>		RE2	120 %	66.4-153%		B2B0024	02/06/12	02/07/12	
<b>Lab ID: 1202011-08</b>		<b>Water - Sampled: 02/01/12 10:10</b>							
<b>Sample ID: TB14</b>		<b>Dissolved Gases by RSK-175</b>							
Methane		1.4	B1, J	1.2	ug/L	B2B0015	02/03/12	02/06/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>			110 %	66.4-153%		"	"	"	
<b>Lab ID: 1202011-09</b>		<b>Water - Sampled: 02/02/12 10:15</b>							
<b>Sample ID: FB09</b>		<b>Dissolved Gases by RSK-175</b>							
Methane		1.3	B1, J	1.2	ug/L	B2B0015	02/03/12	02/06/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>			110 %	66.4-153%		"	"	"	
<b>Lab ID: 1202011-10</b>		<b>Water - Sampled: 02/02/12 10:29</b>							
<b>Sample ID: HW42z</b>		<b>Dissolved Gases by RSK-175</b>							
Methane		18	B1, J	1.2	ug/L	B2B0015	02/03/12	02/06/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>			115 %	66.4-153%		"	"	"	
<b>Lab ID: 1202011-11</b>		<b>Water - Sampled: 02/02/12 07:57</b>							
<b>Sample ID: TB16</b>		<b>Dissolved Gases by RSK-175</b>							
Methane		6.2		1.2	ug/L	B2B0015	02/03/12	02/07/12	RSK-175/SOP325
Ethane		ND	U	1.2	"	"	"	"	RSK-175/SOP325
Ethene		ND	U	1.1	"	"	"	"	RSK-175/SOP325
<i>Surrogate: Acetylene</i>			109 %	66.4-153%		"	"	"	



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**Quality Control**

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch B2B0015 - RSK175 - Dissolved HC Gases**

**Prepared: 02/03/12 Analyzed: 02/06/12**  
**Dissolved Gases by RSK-175 - Quality Control**

**Blank (B2B0015-BLK1)**

Methane	0.7	C1, J		1.2 ug/L						
Ethane	ND	U		1.2 "						
Ethene	ND	U		1.1 "						

Surrogate: Acetylene	75.7			"	66.5		114	66.4-153		
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**LCS (B2B0015-BS1)**

Methane	37.7			1.2 ug/L	44.1		85	70-130		200
Ethane	74.4			1.2 "	83.2		89	77-137		200
Ethene	72			1.1 "	78.3		92	78-138		200

Surrogate: Acetylene	74.4			"	72.0		103	66.4-153		
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**Matrix Spike (B2B0015-MS1)**

**Source: 1202011-07**

Methane	Not Reported	C2, Q10		1.2 ug/L	44.1	362	84	70-130		20
Ethane	78.6			1.2 "	83.2	1.58	93	70-130		20
Ethene	72.5			1.1 "	78.3	ND	93	70-130		20

Surrogate: Acetylene	68.9			"	72.0		96	66.4-153		
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**Matrix Spike Dup (B2B0015-MSD1)**

**Source: 1202011-07**

Methane	Not Reported	C2, Q10		1.2 ug/L	44.1	362	NR	70-130	32	20
Ethane	78.5			1.2 "	83.2	1.58	92	70-130	0.2	20
Ethene	73.3			1.1 "	78.3	ND	94	70-130	1	20

Surrogate: Acetylene	71.2			"	72.0		99	66.4-153		
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**Batch B2B0024 - RSK175 - Dissolved HC Gases**

**Prepared: 02/06/12 Analyzed: 02/07/12**  
**Dissolved Gases by RSK-175 - Quality Control**

**Blank (B2B0024-BLK1)**

Methane	0.7	C1, J		1.2 ug/L						
Ethane	ND	U		1.2 "						
Ethene	ND	U		1.1 "						

Surrogate: Acetylene	72.2			"	66.5		109	66.4-153		
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**LCS (B2B0024-BS1)**

Methane	33.9			1.2 ug/L	44.1		77	70-130		200
Ethane	70			1.2 "	83.2		84	77-137		200
Ethene	64.6			1.1 "	78.3		83	78-138		200

Surrogate: Acetylene	57.6			"	72.0		80	66.4-153		
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**Qualifiers and Comments**

Q10 The analyte concentration in the unfortified sample is significantly greater than the concentration spiked into the matrix spike and matrix spike duplicate. The reported spike recovery is not a meaningful measure of the dataset's analytical accuracy.

NR Not Reported

J The reported result for this analyte should be considered an estimated value.

C2 The reported concentration for this analyte is above the calibration range of the instrument.

C1 The reported concentration for this analyte is below the quantitation limit.

B1 The concentration of this analyte found in this sample was less than five times the concentration found in the associated method blank.

U Not Detected

NR Not Reported

RE1, RE2, etc: Result is from a sample re-analysis.